What is claimed is:

1. A density adjustment method for adjusting a density of a diagnostic image formed on a film, comprising:

exposing an image to form an latent image on the film based on test exposure data and/or diagnostic image data;

developing the latent image to form a developed image;

measuring a density of the developed image;

creating a lookup table for relating the diagnostic image data and amount of exposure so as to reproduce a density specified by the diagnostic image data, based on the test exposure data and a measured density of the developed image formed on the film by the test exposure data; and

compensating by correcting at least one of an exposure condition in the exposing step and a development condition in the developing step to ensure that the next film has the optimized density, based on the difference between the measured density value obtained by exposing a partial area of the film with a prescribed exposure amount at the time of forming the diagnostic image with the diagnostic image data and by measuring the density of the partial area of the film, and a density value for comparison corresponding to the prescribed exposure amount;

wherein, a density of a prescribed area, exposed by a specific exposure amount, in an image formed by an exposure based on the test exposure data, is measured, and the measured value of the density is used as the density value for comparison; at the same time, the specific exposure amount is used as the prescribed exposure amount for exposing the partial area of the film at the time of forming a diagnostic image.

2. The density adjustment method of claim 1, wherein the density of a prescribed area is within the range of 1.0 through 2.0.

3. The density adjustment method of claim 1, wherein a prescribed area, positioned at the tip of the film, in the image formed by an exposure based on the test exposure data is used for measuring the density of a prescribed area.

4. The density adjustment method of claim 1, wherein the partial area of the film is positioned at the tip of the film, at the time of forming the diagnostic image.

5. A density adjustment method for adjusting a density of a diagnostic image formed on a film, comprising:

exposing an image to form an latent image on the film based on test exposure data and/or diagnostic image data;

developing the latent image to form a developed image;

measuring a density of the developed image;

creating a lookup table for relating the diagnostic image data and amount of exposure so as to form a density specified by the diagnostic image data, based on the test exposure data and a measured density of the developed image formed on the film by the test exposure data; and

compensating by correcting at least one of an exposure condition in the exposing step and a development condition in the developing step to ensure that the next film has the optimized density, based on the difference between the measured density value obtained by exposing a partial area of the film with a prescribed exposure amount at the time of forming the diagnostic image with the diagnostic image data and by measuring the density of the partial area of the film, and a density value for comparison corresponding to the prescribed exposure amount;

wherein, after creation of the lookup table, a specific exposure amount is obtained from the lookup table to get a

predetermined density, the film is exposed by the specific exposure amount to form an image, a density of the image is measured, and the density of the image is used as the density for comparison, while the partial area of the film is exposed by the specific exposure amount at the time of forming a subsequent diagnostic image.

6. The density adjustment method of claim 5, the predetermined density is within the range of 1.0 through 2.0.

7. The density adjustment method of claim 5, wherein the density of the image used as the density for comparison is a density of a predetermined area of an image positioned at the tip of the film.

8. The density adjustment method of claim 7, wherein the density of a predetermined area is an average of values having been measured several times.

9. The density adjustment method of claim 5, wherein when a condition change has been made to at least one of the film, the developing step, the exposing step and the density

measuring step, the lookup table is created, and the density value for comparison is set.

10. The density adjustment method of claim 9, the predetermined density is within the range of 1.0 through 2.0.

11. The density adjustment method of claim 9, wherein the density of the image used as the density for comparison is a density of a predetermined area of an image positioned at the tip of the film.

12. The density adjustment method of claim 11, wherein the density of a predetermined area is an average of values having been measured several times.

13. The density adjustment method of claim 9, wherein the developing step is carried out by a heating section containing the heating member to heat the film, and by a cooling/transporting section for transporting the heated film while cooling it, wherein when the heating member has been replaced and/or the cooling/transporting section has been subjected to maintenance, the lookup table is created and the density value for comparison is set.

14. The density adjustment method of claim 1, wherein when a condition change has been made to at least one of the film, the developing step, the exposing step and the density measuring step, the lookup table is created, and the density value for comparison is set.

15. The density adjustment method of claim 14, the density of a prescribed area is within the range of 1.0 through 2.0.

16. The density adjustment method of claim 14, wherein a prescribed area, positioned at the tip of the film, in the image formed by an exposure based on the test exposure data is used for measuring the density of a prescribed area.

17. The density adjustment method of claim 14, wherein the partial area of the film is positioned at the tip of the film, at the time of forming the diagnostic image.

18. The density adjustment method of claim 14, wherein the developing step is carried out by a heating section containing the heating member to heat the film, and by a cooling/transporting section for transporting the heated film

while cooling it, wherein when the heating member has been replaced and/or the cooling/transporting section has been subjected to maintenance, the lookup table is created and the density value for comparison is set.

19. An image processing apparatus for processing a diagnostic image, comprising:

an exposure section for exposing an image to form an latent image on the film based on test exposure data and diagnostic image data;

a development section for developing the latent image to form a developed image;

a measurement section for measuring a density of the developed image;

a calibration section for creating a lookup table for relating the diagnostic image data and amount of exposure so as to reproduce a density specified by the diagnostic image data, based on the test exposure data and a measured density of the developed image formed on the film by the test exposure data; and

a compensation section for correcting at least one of an exposure condition in the exposure section and a development condition in the development section to ensure

that a next film has an optimized density, based on the difference between the measured density value obtained by exposing a partial area of the film with a prescribed exposure amount, which is obtained from the lookup table so as to reproduce a predetermined density, at the time of forming the diagnostic image with the diagnostic image data, and by measuring the density of the partial area of the film, and a density value for comparison corresponding to the prescribed exposure amount;

wherein the image processing apparatus further comprises a correction section for correcting the density value for comparison based on the measured density value, prior to correction by the compensation section subsequent to creation of the lookup table by the calibration section.

20. The image processing apparatus of claim 19, wherein the correction section corrects the density value for comparison based on the measured density value, at the time of forming an image within the predetermined time subsequent to creation of a lookup table by the calibration section.

21. The image processing apparatus of claim 19, wherein the density value for comparison is within the range of 1.0 through 2.0.

22. An image processing method for processing a diagnostic image, comprising:

exposing an image to form an latent image on the film based on test exposure data and diagnostic image data;

developing the latent image to form a developed image;

measuring a density of the developed image;

calibrating by creation of a lookup table for relating the diagnostic image data and amount of exposure so as to form a density specified by the diagnostic image data, based on the test exposure data and a measured density of the developed image formed on the film by the test exposure data; and

compensating by correcting at least one of an exposure condition in the exposing step and a development condition in the developing step to ensure that a next film has an optimized density, based on the difference between the measured density value obtained by exposing a partial area of the film with a prescribed exposure amount, which is obtained from the lookup table so as to reproduce a predetermined

density, at the time of forming the diagnostic image with the diagnostic image data, and by measuring the density of the partial area of the film, and a density value for comparison corresponding to the prescribed exposure amount;

wherein the image processing method further comprises a correcting step for correcting the density value for comparison based on the measured density value, prior to correction by the compensating step subsequent to creation of the lookup table by the calibrating step.

23. The image processing method of claim 22, wherein the correcting step corrects the density value for comparison based on the measured density value, at the time of forming an image within the predetermined time subsequent to creation of a lookup table by the calibrating step.

24. The image processing method of claim 22, wherein the density value for comparison is within the range of 1.0 through 2.0.

25. A program for making a computer conduct an image processing method by being incorporated in an image processing apparatus, the image processing method comprising:

exposing an image to form an latent image on the film based on test exposure data and diagnostic image data;

developing the latent image to form a developed image;

measuring a density of the developed image;

calibrating by creation of a lookup table for relating the diagnostic image data and amount of exposure so as to reproduce a density specified by the diagnostic image data, based on the test exposure data and a measured density of the developed image formed on the film by the test exposure data; and

compensating by correcting at least one of an exposure condition in the exposing step and a development condition in the developing step to ensure that a next film has an optimized density, based on the difference between the measured density value obtained by exposing a partial area of the film with a first prescribed exposure amount, which is obtained from the lookup table so as to reproduce a predetermined density, at the time of forming the diagnostic image with the diagnostic image data, and by measuring the density of the partial area of the film, and a density value for comparison corresponding to the prescribed exposure amount;

wherein the image processing method further comprises a correcting step for correcting the density value for comparison based on the measured density value, prior to correction by the compensating step subsequent to creation of the lookup table by the calibrating step.

26. An image processing apparatus comprising:

an exposure section for forming an image as a latent image on a film based on image data, and for exposing a partial area of the film for image formation with a predetermined exposure amount or with an output exposure amount calculated via a LUT with respect to a specified density;

a development section for developing and visualizing the exposed film;

a measuring section for measuring the density of the developed film;

a density control section for controlling the exposure section and/or the development section so that the density of the next film to be image-formed will be optimized, based on a difference between a predetermined density value for comparison and the measured density value obtained through

measuring a density of the partial area of the film by the measuring section;

a time monitoring section for monitoring a down time when the power supply to the image processing apparatus is suspended; and

a compensation section for correcting the control condition by the density control section, based on the down time monitored by the time monitoring section.

27. An image processing apparatus comprising:

an exposure section for forming an image as a latent image on a film based on image data, and for exposing a partial area of the film for image formation with a predetermined exposure amount or with an output exposure amount computed via a LUT with respect to a specified density;

a development section for developing and visualizing the exposed film;

a measuring section for measuring the density of the developed film;

a density control section for controlling the exposure section and/or the development section so that the density of the next film to be image-formed is optimized, based on a

difference between a predetermined density value for comparison and the measured density value obtained through measuring a density of the partial area of the film by the measuring section;

a temperature detection section for detecting the temperature of at least one position on the image processing apparatus when power is turned on; and

a compensation section for correcting the control condition by the density control section, based on the temperature detected by the temperature detection section.

28. The image processing apparatus of claim 27, wherein the development section comprises a heating/transporting section and a cooling/transporting section, and the cooling/transporting section is provided with the temperature detection section.

29. The image processing apparatus of claim 27, wherein the temperature detection section detects the temperature of the exposure section.

30. An image processing apparatus comprising:

an exposure section for forming an image as a latent image on a film based on image data, and for exposing a partial area of the film for image formation with a predetermined exposure amount or with an output exposure amount computed via a LUT with respect to a specified density;

a development section for developing and visualizing the exposed film;

a measuring section for measuring the density of the developed film;

a density control section for controlling the exposure section and/or the development section so that the density of the next film to be image-formed is optimized, based on a difference between a predetermined density value for comparison and the measured density value obtained through measuring a density of the partial area of the film by the measuring section;

a time monitoring section for monitoring a down time when the power supply to the image processing apparatus is suspended;

a temperature detection section for detecting the temperature of at least one position on the image processing apparatus when power is turned on; and

a compensation section for correcting the control condition by the density control section, based on the down time monitored by the time monitoring section and based on the temperature detected by the temperature detection section.

31. The image processing apparatus of claim 30, wherein the development section comprises a heating/transporting section and a cooling/transporting section, and the cooling/transporting section is provided with the temperature detection section.

32. The image processing apparatus of claim 30, wherein the temperature detection section detects the temperature of the exposure section.

33. An image processing apparatus comprising:

an exposure section for forming an image as a latent image on a film based on image data;

a development section for developing and visualizing the exposed film;

a density control section for controlling the exposure section and/or development section in such a way as to offset

a change of characteristic in image formation, including a change of characteristic in the exposure section and/or the development section;

a time monitoring section for monitoring a down time when the power supply to the image processing apparatus is suspended; and

a compensation section for correcting a control condition by the density control section, based on the down time monitored by the time monitoring section.

34. An image processing method comprising:

exposing to form an image as a latent image on a film based on image data, and for exposing a partial area of the film for image formation with a predetermined exposure amount or with an output exposure amount computed via a LUT with respect to a specified density;

developing to develop and visualize the exposed film;

measuring the density of the developed film;

controlling the exposing step and/or the developing step so that the density of the next film to be image-formed is optimized, based on a difference between a predetermined density value for comparison and the measured density value

obtained through measuring a density of the partial area of the film by the measuring step;

monitoring a down time when the power supply to an image processing apparatus for the image processing method is suspended; and

compensating by correcting the control condition of the controlling step based on the down time monitored by the monitoring step.

35. An image processing method comprising:

exposing to form an image as a latent image on a film based on image data, and for exposing a partial area of the film for image formation with a predetermined exposure amount or with an output exposure amount computed via a LUT with respect to a specified density;

developing to develop and visualize the exposed film;

measuring the density of the developed film;

controlling the exposing step and/or the developing step so that the density of the next film to be image-formed will be optimized, based on a difference between a predetermined density value for comparison and the measured density value obtained through measuring a density of the partial area of the film by the measuring step;

detecting the temperature of at least one position on an image processing apparatus for the image processing method when power is turned on; and

compensating by correcting the control condition of the controlling step, based on the temperature detected by the detecting step.

36. The image processing method of claim 35, wherein the developing step is conducted by a development apparatus equipped with a heating/transporting section and a cooling/transporting section, and a temperature of the cooling/transporting section is detected by the detecting step.

37. The image processing apparatus of claim 35, wherein a temperature of an exposure section for the exposing step is detected in the detecting step.

38. An image processing method comprising:

exposing to form an image as a latent image on a film based on image data, and for exposing a partial area of the film for image formation with a predetermined exposure amount

or with an output exposure amount computed via a LUT with respect to a specified density;

developing to develop and visualize the exposed film;

measuring the density of the developed film;

controlling the exposing step and/or the developing step so that the density of the next film to be image-formed is optimized, based on a difference between a predetermined density value for comparison and the measured density value obtained through measuring a density of the partial area of the film by the measuring step;

monitoring a down time when the power supply to an image processing apparatus for the image processing method is suspended;

detecting the temperature of at least one position on an image processing apparatus for the image processing method when power is turned on; and

compensating by correcting the control condition of the controlling step based on the down time monitored by the monitoring step, and based on the temperature detected by the detecting step.

39. The image processing method of claim 38, wherein the developing step is conducted by a development apparatus

equipped with a heating/transporting section and a cooling/transporting section, and a temperature of the cooling/transporting section is detected by the detecting step.

40. The image processing apparatus of claim 38, wherein a temperature of an exposure section for the exposing step is detected in the detecting step.

41. An image processing method comprising:

exposing to form an image as a latent image on a film based on image data;

developing to develop and visualize the latent image on the film;

controlling the exposing step and/or the developing step in such a way as to offset a change of characteristic in image formation, including a change of characteristic in the exposing step and/or the developing step;

monitoring a down time when the power supply to an image processing apparatus for the image processing method is suspended; and

compensating by correcting a condition of the controlling step, based on the down time monitored by the monitoring time step.

42. A program for making a computer conduct an image processing method by being incorporated in an image processing apparatus, the image processing method comprising:

exposing to form an image as a latent image on a film based on image data, and for exposing a partial area of the film for image formation with a predetermined exposure amount or with an output exposure amount computed via a LUT with respect to a specified density;

developing to develop and visualize the exposed film;

measuring the density of the developed film;

controlling the exposing step and/or the developing step so that the density of the next film to be image-formed is optimized, based on a difference between a predetermined density value for comparison and the measured density value obtained through measuring a density of the partial area of the film by the measuring step;

monitoring a down time when the power supply to an image processing apparatus for the image processing method is suspended; and

compensating by correcting the control condition of the controlling step based on the down time monitored by the monitoring step.

43. A program for making a computer conduct an image processing method by being incorporated in an image processing apparatus, the image processing method comprising:

exposing to form an image as a latent image on a film based on image data, and for exposing a partial area of the film for image formation with a predetermined exposure amount or with an output exposure amount computed via a LUT with respect to a specified density;

developing to develop and visualize the exposed film;

measuring the density of the developed film;

controlling the exposing step and/or the developing step so that the density of the next film to be image-formed is optimized, based on a difference between a predetermined density value for comparison and the measured density value obtained through measuring a density of the partial area of the film by the measuring step;

detecting the temperature of at least one position on an image processing apparatus for the image processing method when power is turned on; and

compensating by correcting the control condition of the controlling step, based on the temperature detected by the detecting step.

44. A program for making a computer conduct an image processing method by being incorporated in an image processing apparatus, the image processing method comprising:

exposing to form an image as a latent image on a film based on image data, and for exposing a partial area of the film for image formation with a predetermined exposure amount or with an output exposure amount computed via a LUT with respect to a specified density;

developing to develop and visualize the exposed film;

measuring the density of the developed film;

controlling the exposing step and/or the developing step so that the density of the next film to be image-formed is optimized, based on a difference between a predetermined density value for comparison and the measured density value obtained through measuring a density of the partial area of the film by the measuring step;

monitoring a down time when the power supply to an image processing apparatus for the image processing method is suspended;

detecting the temperature of at least one position on an image processing apparatus for the image processing method when power is turned on; and

compensating by correcting the control condition of the controlling step based on the down time monitored by the monitoring step, and based on the temperature detected by the detecting step.

45. A program for making a computer conduct an image processing method by being incorporated in an image processing apparatus, the image processing method comprising:

exposing to form an image as a latent image on a film based on image data;

developing to develop and visualize the latent image on the film;

controlling the exposing step and/or the developing step in such a way as to offset a change of characteristic in image formation, including a change of characteristic in the exposing step and/or the developing step;

monitoring a down time when the power supply to an image processing apparatus for the image processing method is suspended; and

compensating by correcting a condition of the controlling step, based on the down time monitored by the monitoring time step.